Climate Change and Human Health Literature Portal

National Institute of
Environmental Health Sciences

Hot weather warning might help to reduce elderly mortality in Hong Kong

Abstract:

While there was evidence on the relationship between extreme hot weather and the increase in mortality, particularly from ischaemic heart disease (IHD) and cerebrovascular disease (stroke), some researchers suggested that early warning systems might reduce mortality. In this study, the relationship between Very Hot Weather Warning (VHWW) and mortality was examined in the context of Hong Kong, which has a sub-tropical climate. An observational study was conducted on the daily number of deaths due to IHD and stroke in the Hong Kong elderly population (aged 65 or above) during summer (May–September) in 1997–2005. Totals of 4,281 deaths from IHD and 4,764 deaths from stroke occurred on days with maximum temperature reaching/exceeding 30.4°C. Multiple linear regression models were used to study the association between VHWW and the daily mortality rates from IHD and from stroke, respectively. Results showed that absence of VHWW was associated with an increase of about 1.23 (95% CI: 0.32, 2.14) deaths from IHD and 0.97 (95% CI: 0.02, 1.92) deaths from stroke among the elderly per day. Public education is required to inform the elderly to take appropriate preventive measures and to remind the public to pay more care and attention to the elderly on days which are not considered to be stressful to the general public. Warning systems tailored for the elderly could also be considered.

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Resource Description

Communication: ☒

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

 A focus of content

Communication Audience: ☒

audience to whom the resource is directed

 Policymaker

Early Warning System: ☒

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

 A focus of content

☐

Exposure : ☒

weather or climate related pathway by which climate change affects health

 Temperature

   Temperature: Extreme Heat

Geographic Feature: ☒

resource focuses on specific type of geography

 Other Geographical Feature

   Other Geographical Feature : Sub-tropical

Geographic Location: ☒

resource focuses on specific location

 Non-United States

   Non-United States: Asia

     Asian Region/Country: China

Health Impact: ☒

specification of health effect or disease related to climate change exposure

 Injury

Intervention: ☒

strategy to prepare for or reduce the impact of climate change on health

 A focus of content

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

 Adaptation

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

 Elderly

Resource Type: ☒

format or standard characteristic of resource

 Research Article

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content